Q1: A 7-mo-old girl is presented to the emergency department with gradual onset of fever, lethargy, and irritability. Her immunizations are up to date. Examination reveals a febrile infant who does not interact with the examiner and cries inconsolably. A lumbar puncture is performed, and the cerebrospinal fluid contains 1,500 white blood cells/mm3, 84% of which are granulocytes; a glucose concentration of 12 mg/dL; and a protein concentration of 70 mg/dL.

- What is the most likely etiologic agent for this infection?
- Mention two other laboratory tests
- What is the treatment required?

Q2: A five year old male presents with headache, nausea, photophobia and fever (temp 38 degrees). His immunizations are up to date. He is not toxic in appearance. He is alert and cooperative. He has mild photophobia and mild nuchal discomfort without rigidity. He can speak and ambulate normally. The remainder of his exam is unremarkable. An LP is done on the patient, the results show the following: 3 RBCs, 200 WBCs, 90% lymphocytes, total protein 45, and glucose 50. Gram stain of the CSF shows many WBCs and no organisms seen.

- What is the most likely diagnosis?
- What other investigations required?
- What is the treatment required?

Q3. A 5 years old girl is presented to the emergency department with a fever headache for few days followed by repeated attacks of focal fits, with paresis of the left lower limb, CSF analysis revealed a picture of normal sugar, slightly elevated protein with pleocytosis.

- what is the diagnosis?
- how do you confirm the diagnosis?
- what are the treatment and prognosis?

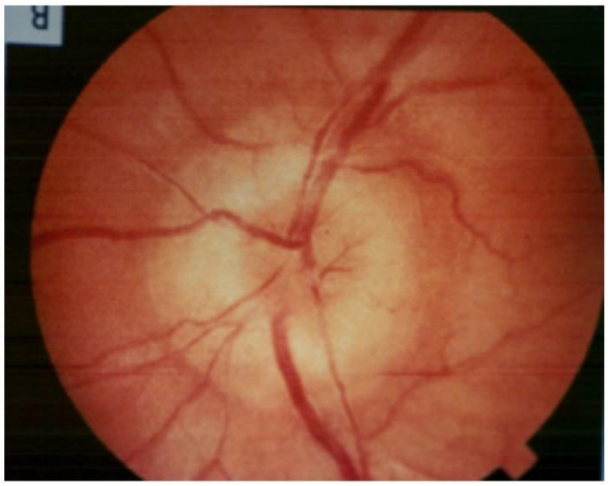
Q4: a 10-year-old girl who presented with a 3-week history of weakness of the right upper and lower limbs, a 6-hour history of inability to speak and irrational behavior. She had no remarkable past medical history, a family history positive with pulmonary TB in her grandfather. Physical examination revealed pyrexia (temperature 38.2°C) and altered level of consciousness (Glasgow coma score-7/15). The signs of meningeal irritation were present and she had anisocoria and right spastic hemiparesis. Other aspects of physical examination were normal. Laboratory investigations showed an elevated erythrocyte sedimentation rate, normal cerebrospinal fluid protein and reduced glucose. The brain computed tomography scan showed features in keeping with obstructive hydrocephalus .

- What is the most likely diagnosis?
- What is the appropriate treatment?

Another tasks:

1. What are the biophysical profile of CSF in regards to
   - Normal profile
   - Bacterial meningitis
   - Viral meningoencephalitis
   - Partially treated meningitis
2. What are the indications, contraindications and complications of lumber puncture.
3. What are the clinical signs of meningitis.
4. What are the signs of raised ICP
5. What are the clinical signs in the following pictures:

   A.



   B.

C.

D.

E.

6. What are the roles of steroids in the treatment of meningitis
7. How can prevent meningitis
8. What are the types of viruses causing encephalitis.
9. What are the clinical stages of TB meningitis.